

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC

In the Matter of:	)	
	)	
The Notice of Proposed Rulemaking to Amend	)	
	)	
Parts 2 and 97 of the Commission's Rules to	)	
	)	
Allocate Additional Frequencies in the LF and HF	)	ET Docket 02-98
	)	
Ranges to the Amateur Radio Service	)	
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**Reply Comments to:**  
**Central Iowa Power Cooperative, Cedar Rapids, IA**  
**Mr. Daniel Glaser for Entergy Corporation, New Orleans, LA**

***1. Background and Introduction***

I, Philip E. Galasso, have been a licensed radio amateur since September 27, 1968 and a holder of the Amateur Extra Class license since April 16, 1976, currently with the station callsign K2PG. I use most of the emission modes permitted on the amateur bands from 1800 kHz through 450 MHz. I have held the First Class Radiotelephone Operator License (now the General Radiotelephone Operator License) since 1973 and am employed as the chief operator of broadcast stations WHTG and WHTG-FM in Eatontown, New Jersey. I also hold a station license in the Experimental Radio Service with the callsign KA2XUK, for the purpose of exploring propagation on the 160-190 kHz band.

On July 2, 2002, Mr. Daniel Glaser, acting on behalf of Entergy Corporation (“Entergy”), filed comments on ET Docket 02-98 opposing the Commission’s proposal to amend Parts 2 and 97 of the Rules to allocate the frequency band 135.7-137.8 kHz to the Amateur Radio Service on a secondary basis. On July 19, 2002, the Central Iowa Power Cooperative (“CIPCO”) filed similar comments. Because the comments of Entergy and CIPCO address a common issue, I have chosen to respond in a single set of reply comments.

## ***2. Power Line Carrier (“PLC”) Systems and Interference***

Entergy is an electric utility serving portions of Arkansas, Louisiana, Mississippi, and Texas. CIPCO is an electric utility serving central Iowa. Both companies operate power line carrier systems for the general supervision of the power system, as defined in Section 15.3 (t) of the Commission’s Rules.<sup>1</sup> Such PLCs operate within the frequency band 9 kHz to 490 kHz, as stipulated under Section 15.113 (b) of the Rules<sup>2</sup>.

Both Entergy and CIPCO oppose any allocation of any low frequency band to the Amateur Radio Service due to concerns about interference to PLCs. According to Entergy, “The high voltage electrical power system could be subjected to false protective signaling for amateur radio operation.” (sic)<sup>3</sup> CIPCO’s comments have a more alarmist tone: “Allocation of this band to amateur operations introduces the potential to interfere with power line carrier (PLC) operations. Based on the type of PLC scheme used, this could result in unnecessary opening of power lines when there is no fault, or failure to open a line when there IS a fault. In either case, this could result in unnecessary outages, and in extreme cases could cause cascading outages over a large geographical area.”<sup>4</sup> (Emphasis contained in the original text)

The current concerns over national security cause one to question the continued use of PLCs. If these unlicensed PLCs are as fragile and as susceptible to interference as claimed by Entergy and CIPCO, they would render our electric power grid vulnerable to terrorist attacks. It is rather easy to build a transmitter for these frequencies. And a terrorist is not going to bother to apply for a radio station license. In Entergy's comments, "...PLC systems for electric system protection have been a traditional, *cost effective* approach for electric utilities for over 50 years. Entergy Corporation would need to retrofit up to 40 existing PLC systems if the proposal to permit amateur radio operation in the 135.7 to 137.8 kHz bands and even more impact would occur for operation in the 160 to 190 kHz band."<sup>5</sup> (Italics supplied) Therein lies the answer to the above question, in that saving money and enhancing corporate profits apparently take precedence over national security concerns. This assumes, of course, that the PLCs are actually as vulnerable to interference as claimed by Entergy.

There are no legal grounds under present Commission Rules to require the Amateur Radio Service or any other licensed radio service to protect PLC systems. The language of Section 15.5 (a) and (b) is airtight concerning this. Section 15.5 (a) states, "Persons operating intentional or unintentional radiators *shall not be deemed to have any vested or recognizable right to continued use of any given frequency by virtue of prior registration or certification of equipment, or, for power line carrier systems, on the basis of prior notification of use pursuant to Section 90.63 (g) of this chapter.*" (Italics supplied) Section 15.5 (b) states, "Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that *interference must be accepted that may be caused by the operation of an authorized radio station*, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator. (Italics supplied) Under the above sections of the Rules, an electric utility's PLC systems are no more entitled to protection from interference from licensed radio stations operating in the 9 kHz to 490 kHz spectrum than the users of 49 MHz cordless telephones would be entitled to protection from interference from licensed users of that spectrum. There is certainly no legal foundation for holding any licensed radio service hostage to any unlicensed Part 15 user of radio frequency spectrum.

### **3. Conclusion**

In light of the above, the arguments made against the allocation of LF spectrum to the Amateur Radio Service by Entergy and CIPCO are totally without merit and the band 135.7 to 137.8 kHz should be allocated to the Amateur Radio Service, as it has already been allocated in several other countries. The Commission should further move to allocate the band 160-190 kHz to the Amateur Radio Service to provide this service with frequencies for reliable groundwave communications.

Respectfully submitted,

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Copies of these Reply Comments have been mailed to Entergy and CIPCO, in accordance with Part 1 of the Commission's Rules.

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<sup>1</sup> Section 15.3 (t) defines power line carrier systems as, "An unintentional radiator employed as a carrier current system used by an electric power entity on transmission lines for protective relaying, telemetry, etc. for general supervision of the power system. The system operates by the transmission of radio frequency energy by conduction over the electric power transmission lines of the system. The system does not include those electric lines which connect the distribution substation to the customer or house wiring."

<sup>2</sup> Section 15.113 (b): The operating parameters of a power line carrier system (particularly the frequency) shall be selected to achieve the highest practical degree of compatibility with authorized or licensed users of the radio spectrum. The signals from this operation shall be contained within the frequency band 9 kHz to 490 kHz. A power line carrier system shall operate *on an unprotected, non-interference basis* in accordance with Section 15.5 of this Part. *If harmful interference occurs, the electric power utility shall discontinue use or adjust its power line carrier*

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*operation, as required, to remedy the interference.* Particular attention shall be paid to the possibility of interference to Loran C operations at 100 kHz. (Italics supplied)

<sup>3</sup> Comments of Daniel Glaser for Entergy Services, Inc., filed electronically on July 2, 2002

<sup>4</sup> Comments of the Central Iowa Power Cooperative, filed electronically on July 19, 2002

<sup>5</sup> Ibid.